IN THE CLAIMS:

1. (Currently amended) A method for the synthesis of carbide cermet powders, comprising

high-energy ball milling at a speed greater than 300 rotations per minute a mixture of carbide cermet precursor powders comprising at least two different metals and a carbon source to form an as-milled powder; and

annealing the as-milled powder to form a carbide cermet powder wherein the carbide cermet precursor powders comprise a metal oxide.

2. (Original) The method of claim 1, wherein the carbide cermet precursor powders comprises at least one of silicon, titanium, thorium, hafnium, vanadium, chromium, tungsten, nickel, cobalt, iron, tantalum, niobium, or zirconium.

3 (Previously presented) The method of claim 1, wherein the carbon source is graphite, coal, thermal black, acetylene black, coke, or a mixture thereof.

4. (Original) The method of claim 1, wherein the high-energy ball milling is performed using an attritor.

5. (Original) The method of claim 1, wherein annealing is carried out under a flow of inert gas.

6. (Original) The method of claim 1, wherein the carbide cermet precursor powders are ball milled in the presence of a liquid.

7. (Original) The method of claim 1, comprising annealing is at a temperature in the range from about 500 °C to about 1500 °C.

8. (Previously presented) The method of claim 1, wherein the carbide cermet powder comprises nanostructured particles.

9. (Currently amended) A method for the synthesis of micron- or submicron-sized, carbide cermet powders, comprising

high energy ball milling at a speed greater than 300 rotations per minute a mixture of a carbon source, at least one of a precursor of SiC, TiC, VC, HfC, ThC_2, ThC, Cr_3C_2 WC, W_2C, ZrC, TaC, Ta_2C, or NbC, and a metal source to form a milled powder; and

annealing the milled powder to form micron- or submicron-sized, carbide cermet powders wherein the precursor is a metal oxide.

10. (Original) The method of claim 9, wherein the precursor of SiC, TiC, VC, HfC, ThC_2, ThC, Cr_3C_2 WC, W_2C, ZrC, TaC, Ta_2C, or NbC is the corresponding oxide or element.

11. (Original) The method of claim 9, wherein the metal is cobalt, nickel, iron, chromium, or a nickel-chromium alloy.

12. (Original) The method of claim 9, wherein the carbon precursor is graphite, coal, thermal black, acetylene black, coke, or a combination thereof.

13. (Original) The method of claim 9, wherein annealing is carried out under a flow of inert gas and at a temperature in the range from about 500°C to about 1500°C.

14. (Previously presented) The method of claim 9, wherein the carbide cermet powder comprises nanostructured particles.

15. (Original) The method of claim 9, wherein the carbon source and cermet precursor powders are ball milled in the presence of a liquid.

16. (Currently amended) A method for the synthesis of micron- or submicron-sized tungsten carbide powders, comprising

high-energy ball milling at a speed greater than 300 rotations per minute a mixture of a tungsten ~~source~~oxide, a carbon source, and a cobalt source to form a milled powder; and

annealing the milled powder to form micron- or submicron-sized tungsten carbide cobalt powders.

17. (Currently amended) The method of claim 16, wherein the tungsten ~~source~~oxide is tungsten trioxide and the cobalt source is cobalt or cobalt oxide.

18. (Original) The method of claim 16, wherein the carbon precursor is graphite, coal, thermal black, acetylene black, coke, or a combination thereof.

19. (Original) The method of claim 16, wherein annealing is carried out under a flow of inert gas, at a temperature in the range from about 700 to about 1300°C.

20. (Original) The method of claim 16, wherein the tungsten cobalt carbide powder further comprises one or more of Ni, Cr, Ni-Cr alloy, TiC, TaC, NbC, VC, or Cr_3C_2.

21. (Original) The method of claim 16, wherein the tungsten cobalt carbide powder is nanostructured.

22. (Currently amended) The method of claim 16, wherein the carbon source, tungsten ~~source~~oxide, and cobalt ~~precursor~~source powders are ball milled in the presence of a liquid.

23. (Currently amended) A method for the synthesis of micron- or submicron-sized, nanostructured tungsten carbide cobalt powders, comprising

high-energy ball milling at a speed greater than 300 rotations per minute a mixture of a tungsten ~~precursor~~oxide, a carbon source, and a cobalt precursor to form an as-milled powder; and

annealing the as-milled powder at a temperature from about 700 °C to about 1300 °C, thereby forming micron- or submicron-sized, tungsten carbide cobalt powders comprising nanostructured particles.

24. (Previously presented) The method of claim 23, wherein the carbon source is graphite, coal, thermal black, acetylene black, coke, or a mixture thereof.

25. (Original) The method of claim 23, wherein annealing is carried out under a flow of inert gas.

26. (Original) The method of claim 23, wherein the nanostructured tungsten cobalt carbide powder further comprises one member of the group consisting of TiC, TaC, NbC, VC, Ni, Fe, and Cr_3C_2.

27. (Currently amended) The method of claim 23, wherein the carbon source, tungsten oxide, and cobalt precursor powders are ball milled in the presence of a liquid.